Anti-Angiogenesis Screening: Target Angiogenic-Endothelial Cell Functions

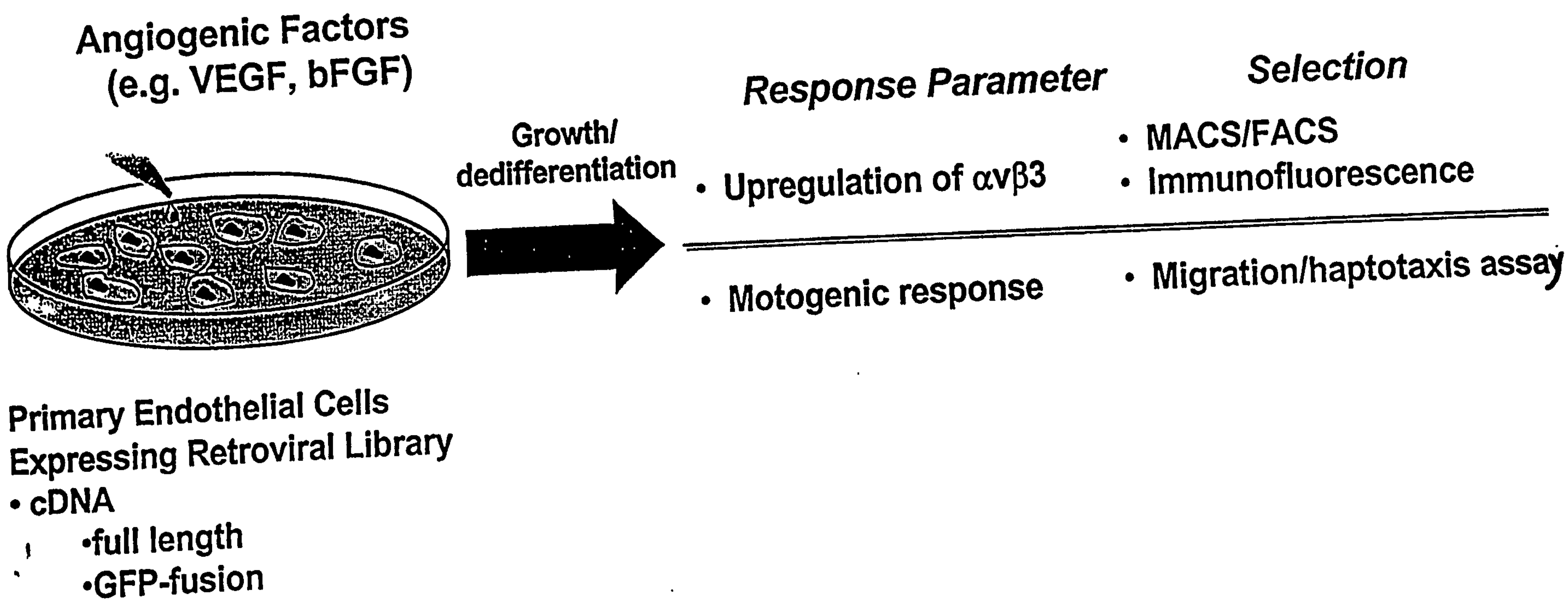


FIG. 1

BEST AVAILABLE COPY

Clone 19B5 Encodes a GFP-Plakoglobin Fusion Protein

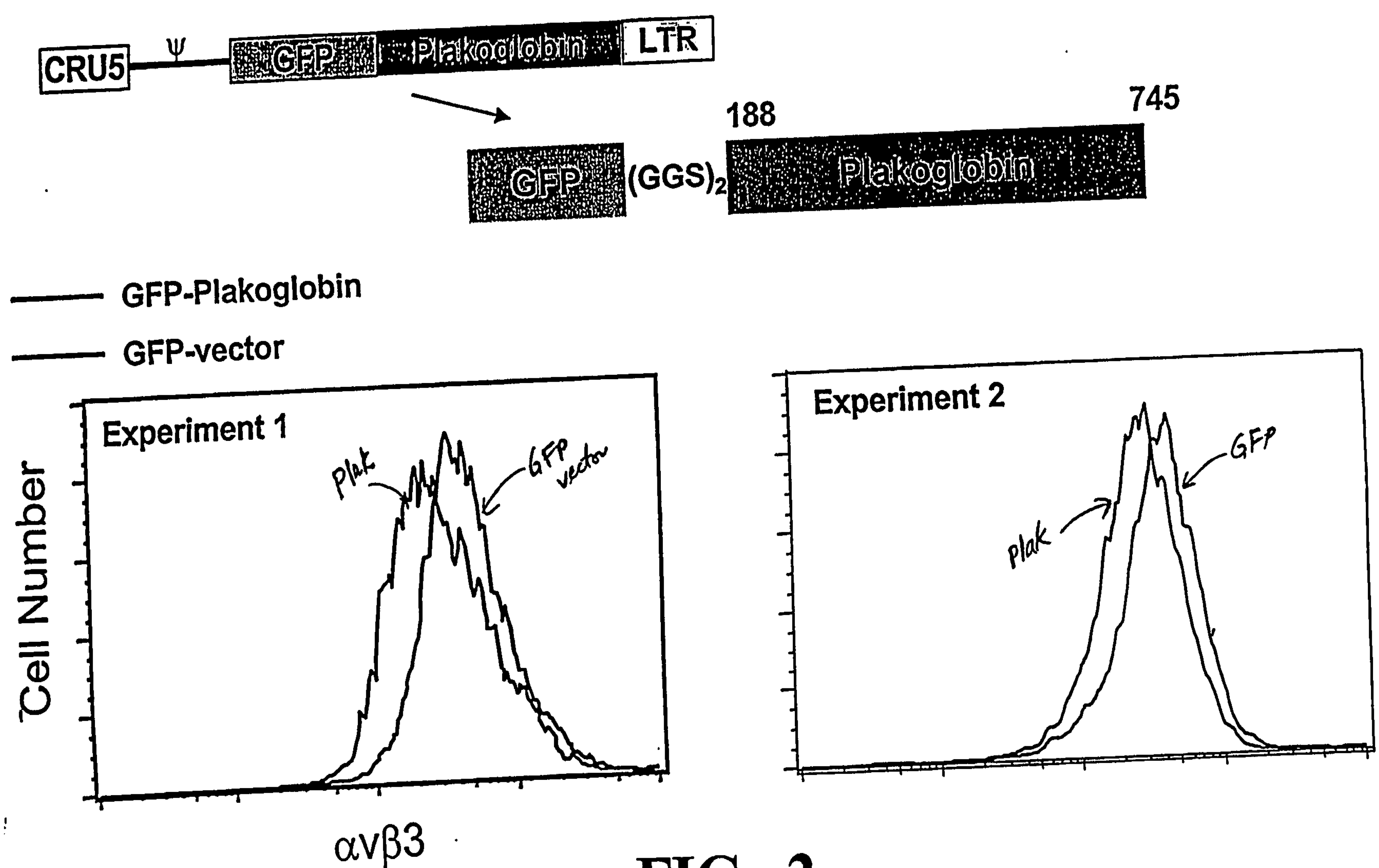


FIG. 2

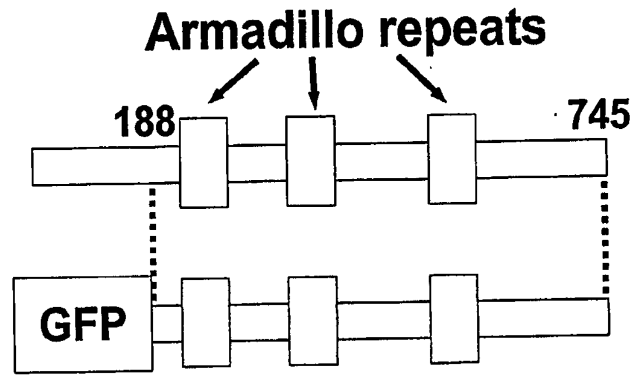
Figure 3

GFP-ΔN-Plakoglobin Expression in Endothelial Cells Downregulates αvβ3 Surface Levels

Functional Screening Hit

Plakoglobin

GFP-ΔN-Plakoglobin



FACS Analysis

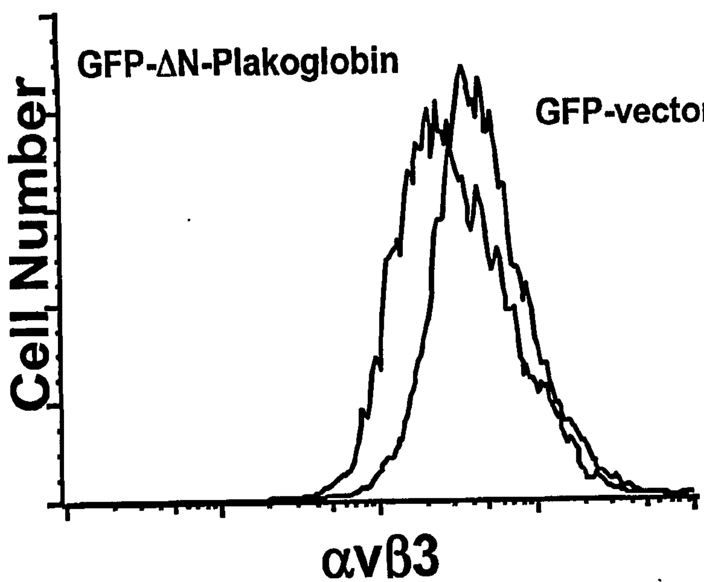


Figure 4

GFP-ΔN-Plako Expression Downregulates Vitronectin Receptors ($\alpha v\beta 3$ and $\alpha v\beta 5$) But Not the Fibronectin Receptor ($\alpha 5\beta 1$)

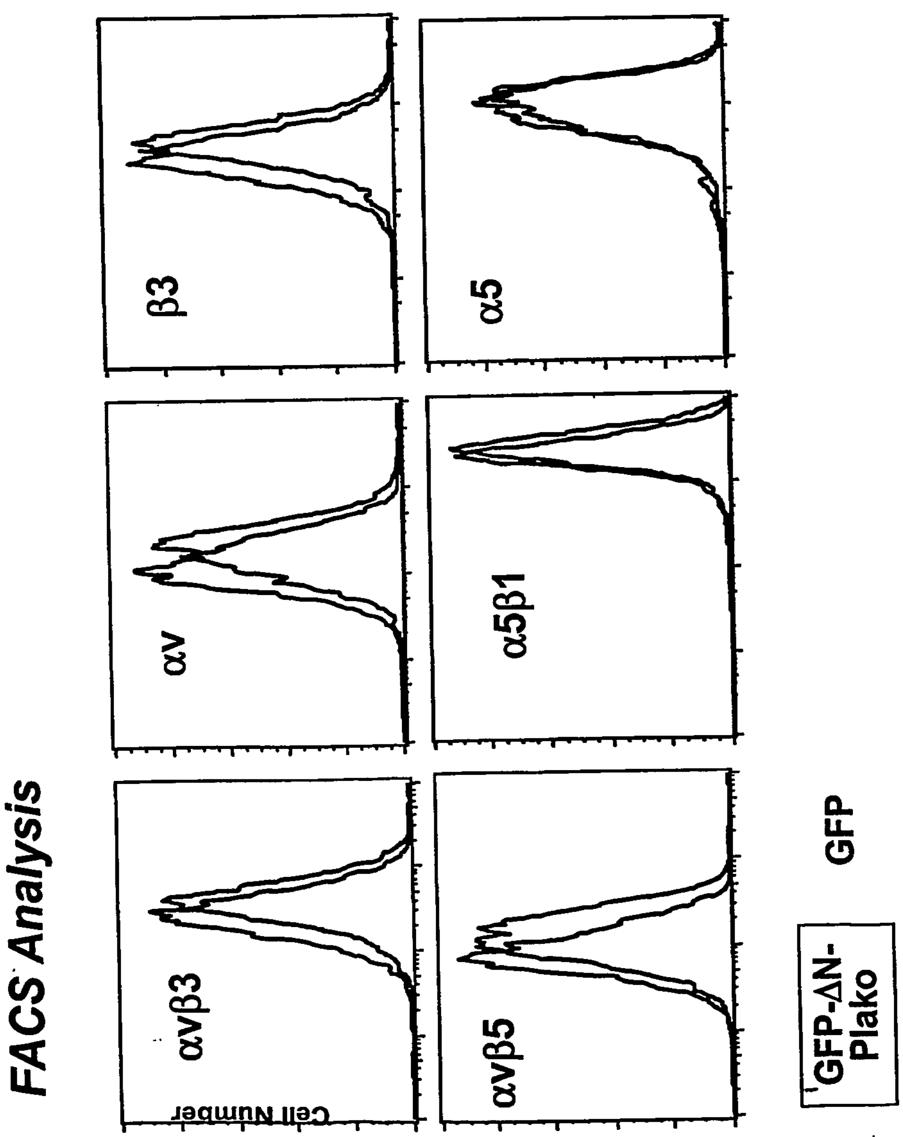
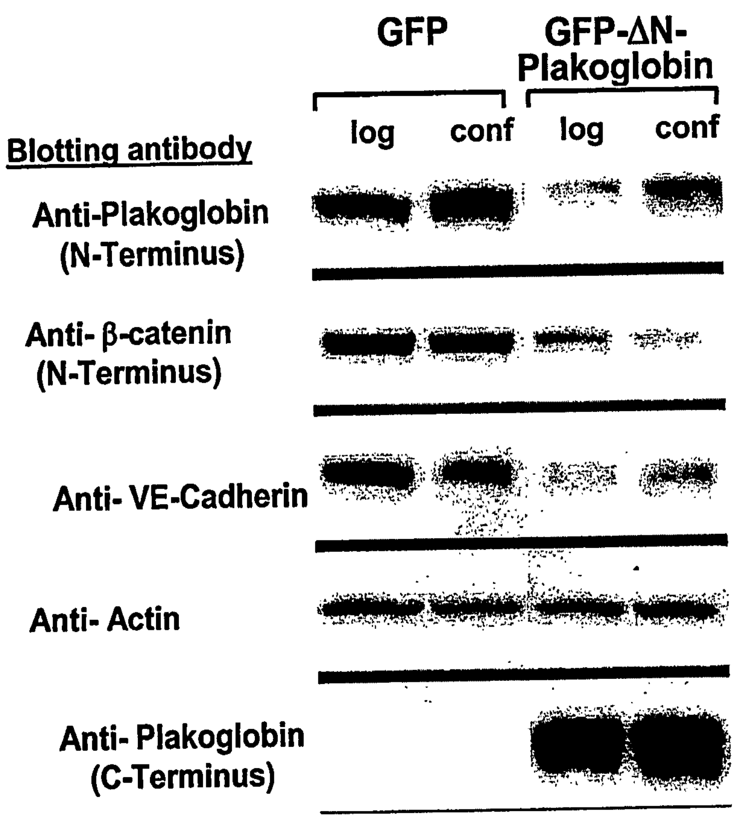


Figure 5

Expression of GFP-ΔN-Plakoglobin Downregulates Endogenous Catenin Levels

Western blot



(Transduced HUVEC)

Figure 6

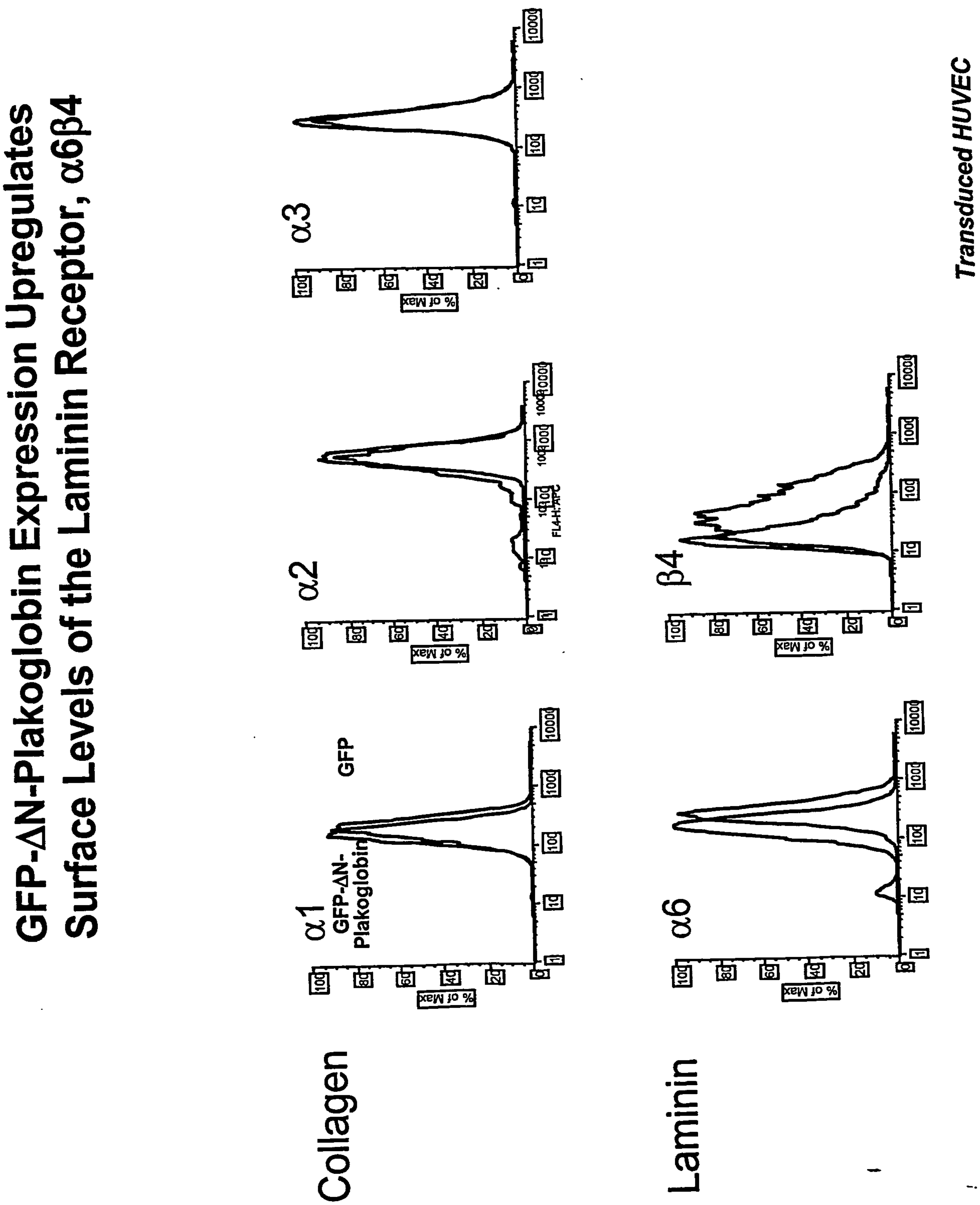

GFP-ΔN-Plakoglobin Expression Upregulates
Surface Levels of the Laminin Receptor, α6β4
Collagen
Laminin
α1
α2
α3
α6
β4
GFP-ΔN-Plakoglobin
GFP
% of Max
0
20
40
60
80
100
1
10
100
1000
10000
Transduced HUVEC

Figure 7

αvβ3 Screen Clone Encodes an N-terminally Truncated Splice Variant of HoxB2

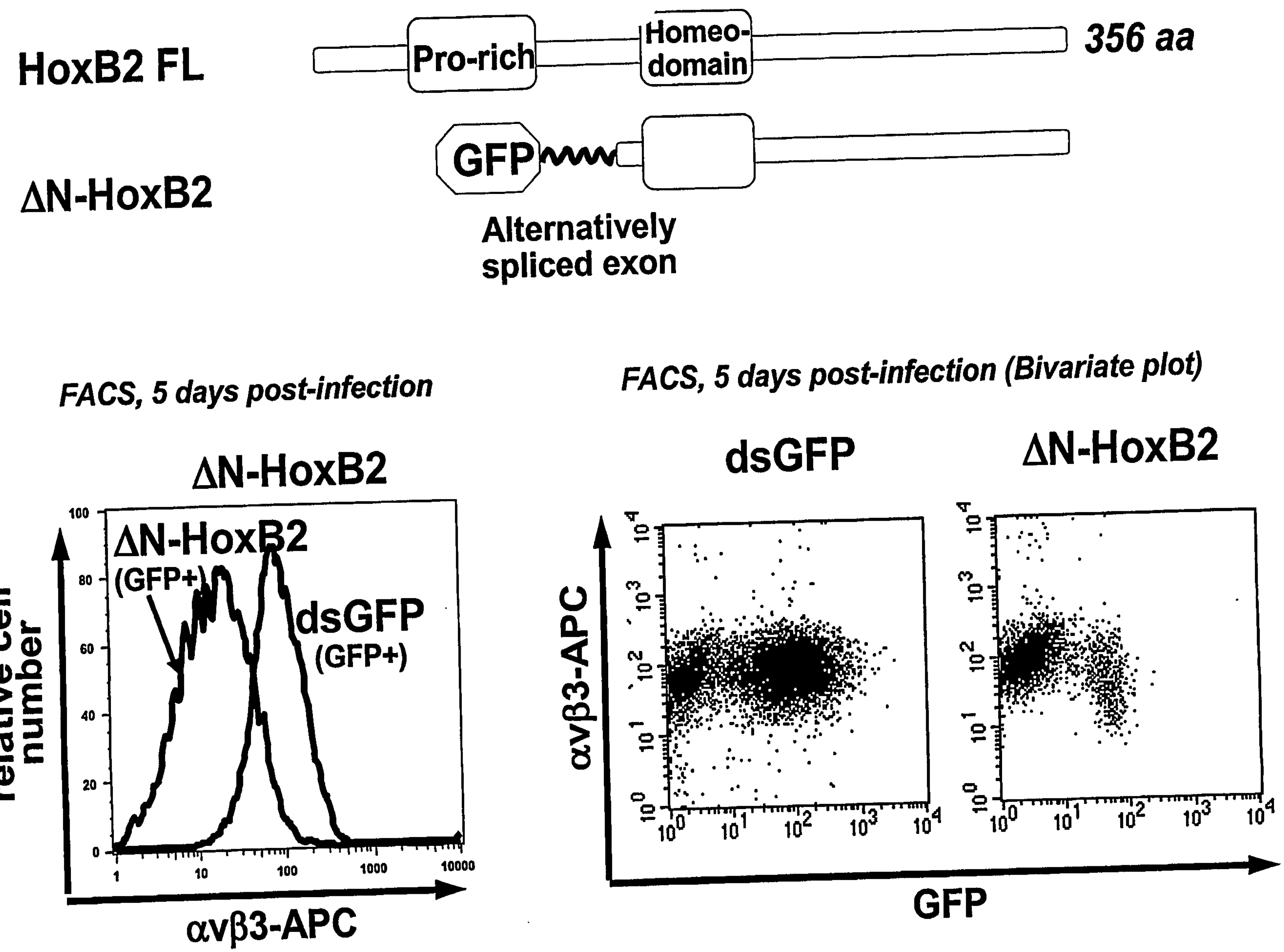
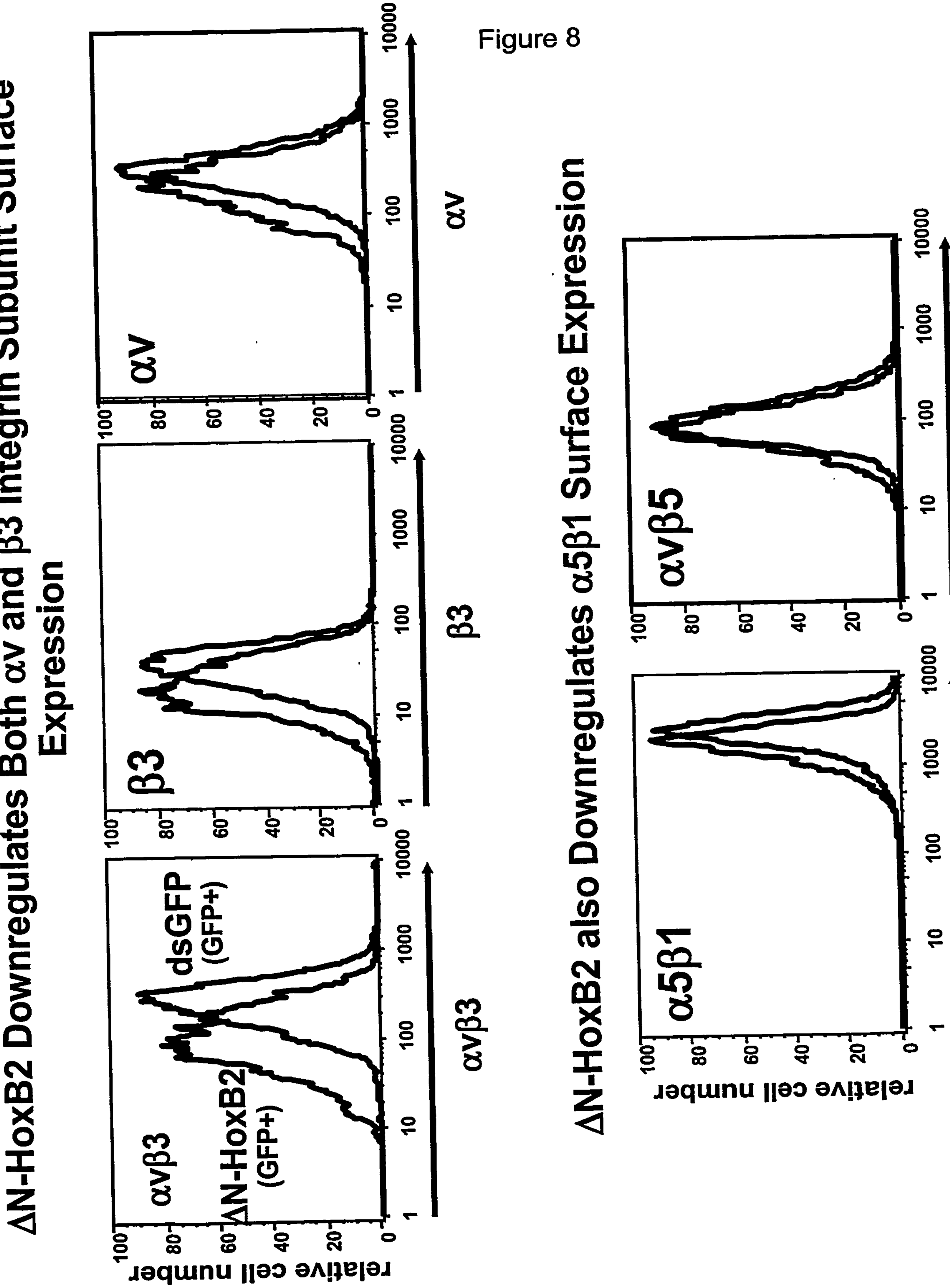


Figure 8


ΔN-HoxB2 Downregulates Both αv and β3 Integrin Subunit Surface Expression
ΔN-HoxB2 also Downregulates α5β1 Surface Expression
relative cell number
αvβ3
dsGFP
(GFP+)
ΔN-HoxB2
(GFP+)
β3
αv
αvβ5
α5β1
0
20
40
60
80
100
1
10
100
1000
10000

ΔN-HoxB2 Inhibits Proliferation in HUVECs

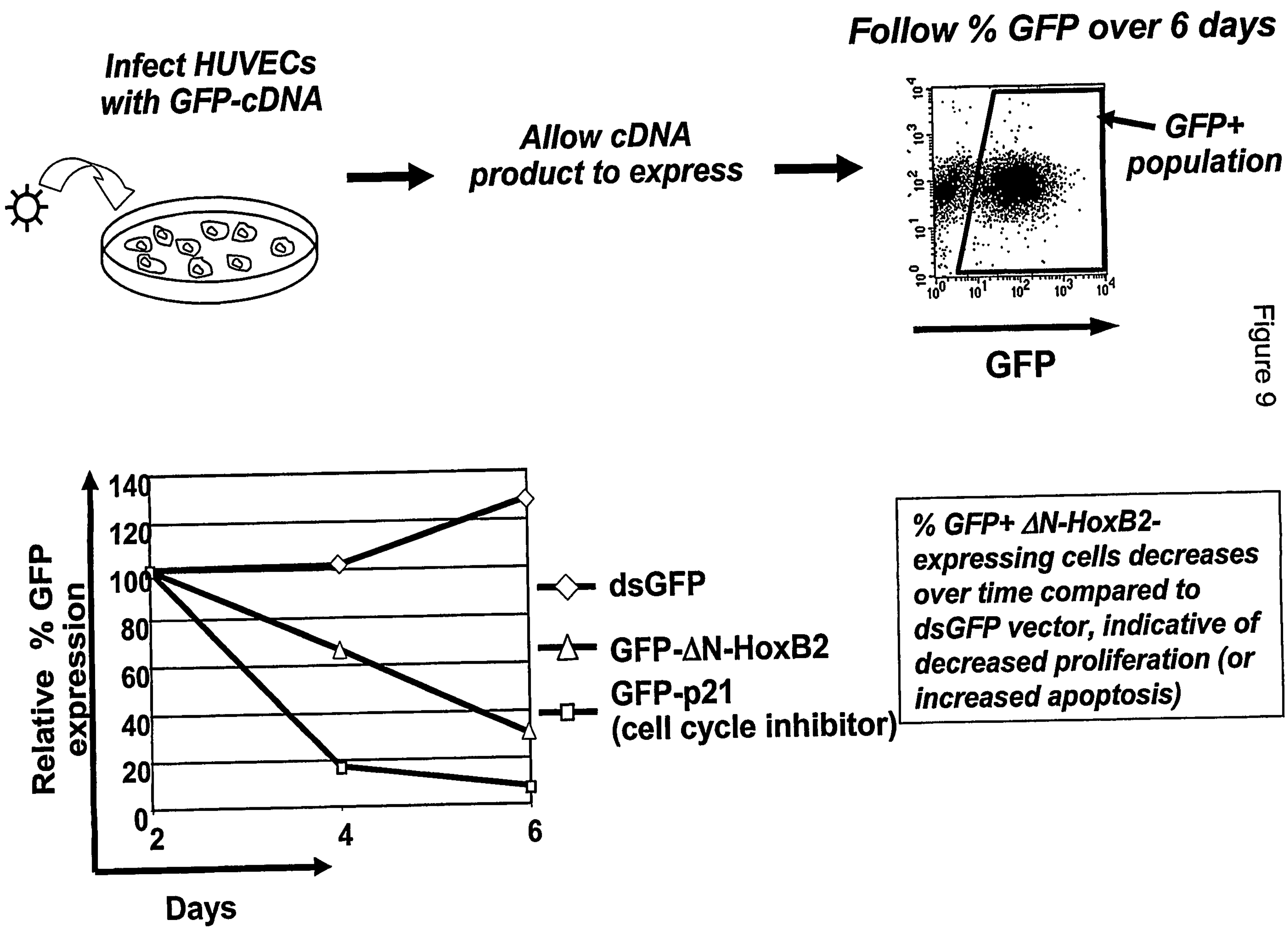


Figure 9

Figure 10

Full Length HoxB2 Phenocopies ΔN-HoxB2 in the Downregulation of αvβ3

FACS, 5 days post-infection

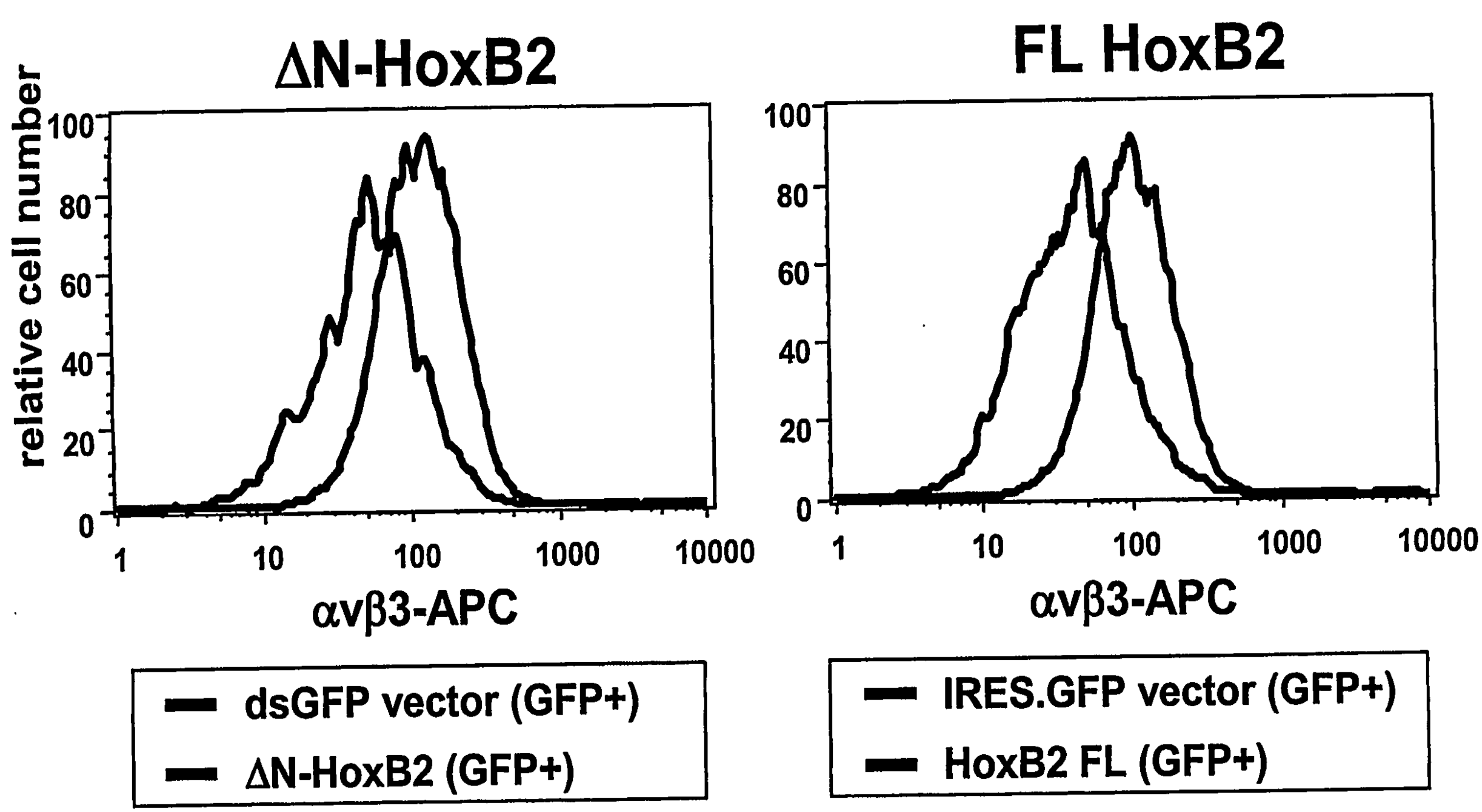


Figure 11

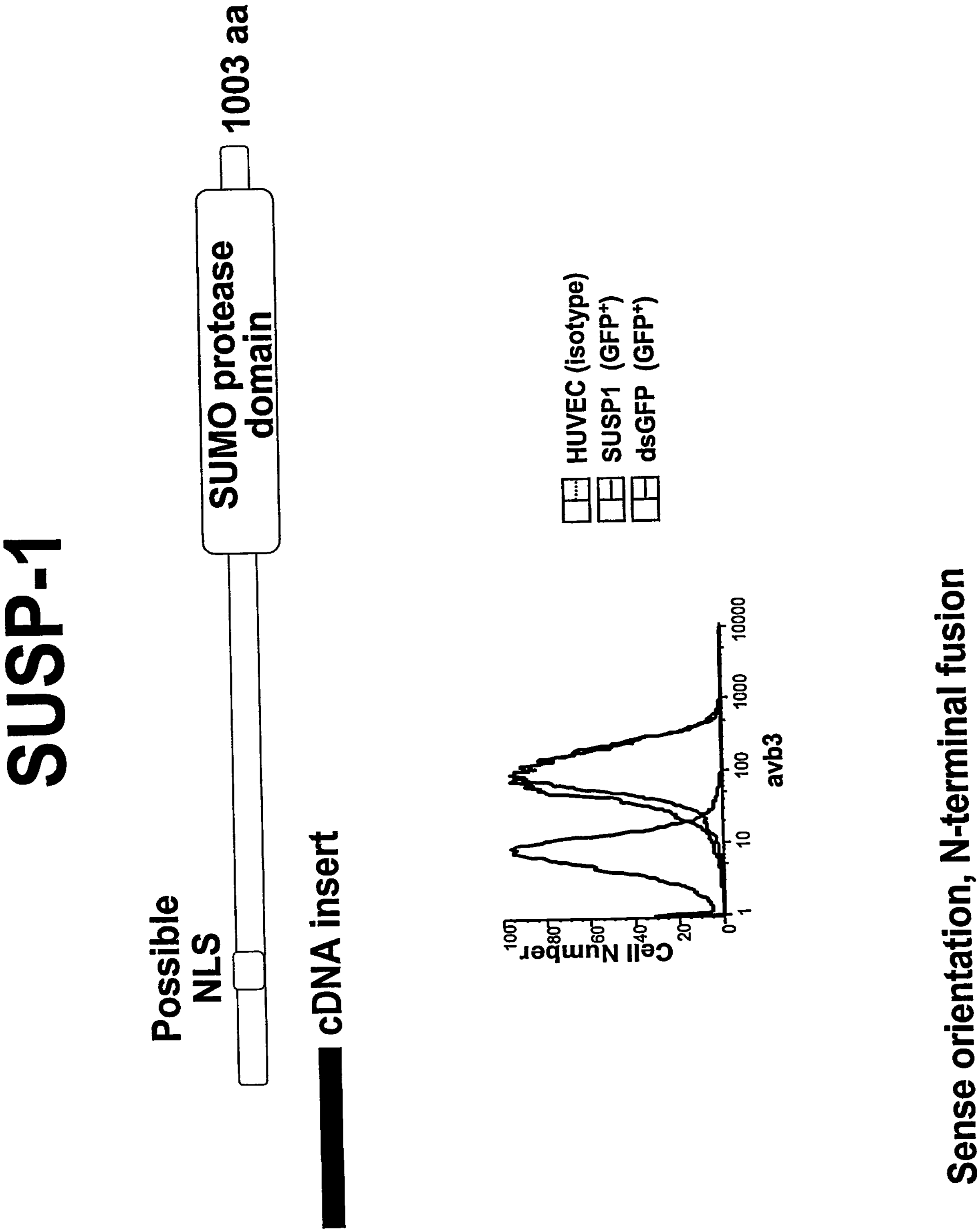
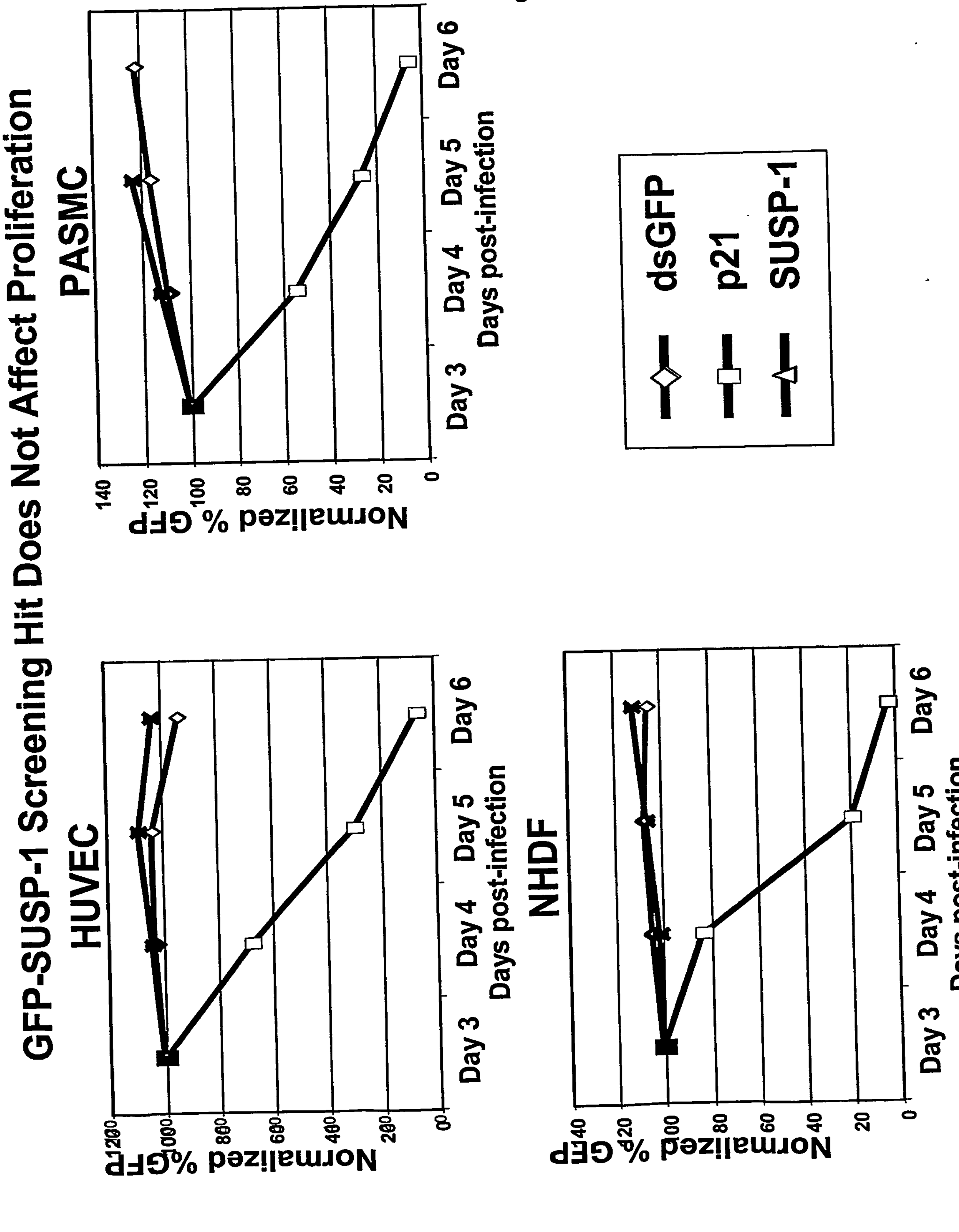

SUSP-1
Possible NLS
SUMO protease domain
1003 aa
cDNA insert
Cell Number
avb3
HUVEC (isotype)
SUSP1 (GFP+)
dsGFP (GFP+)
Sense orientation, N-terminal fusion

Figure 12


GFP-SUSP-1 Screening Hit Does Not Affect Proliferation
PASMC
HUVEC
NHDF
Normalized % GFP
Days post-infection
Day 3
Day 4
Day 5
Day 6
0
20
40
60
80
100
120
140
dsGFP
p21
SUSP-1

Expression Analysis of SUSP-1

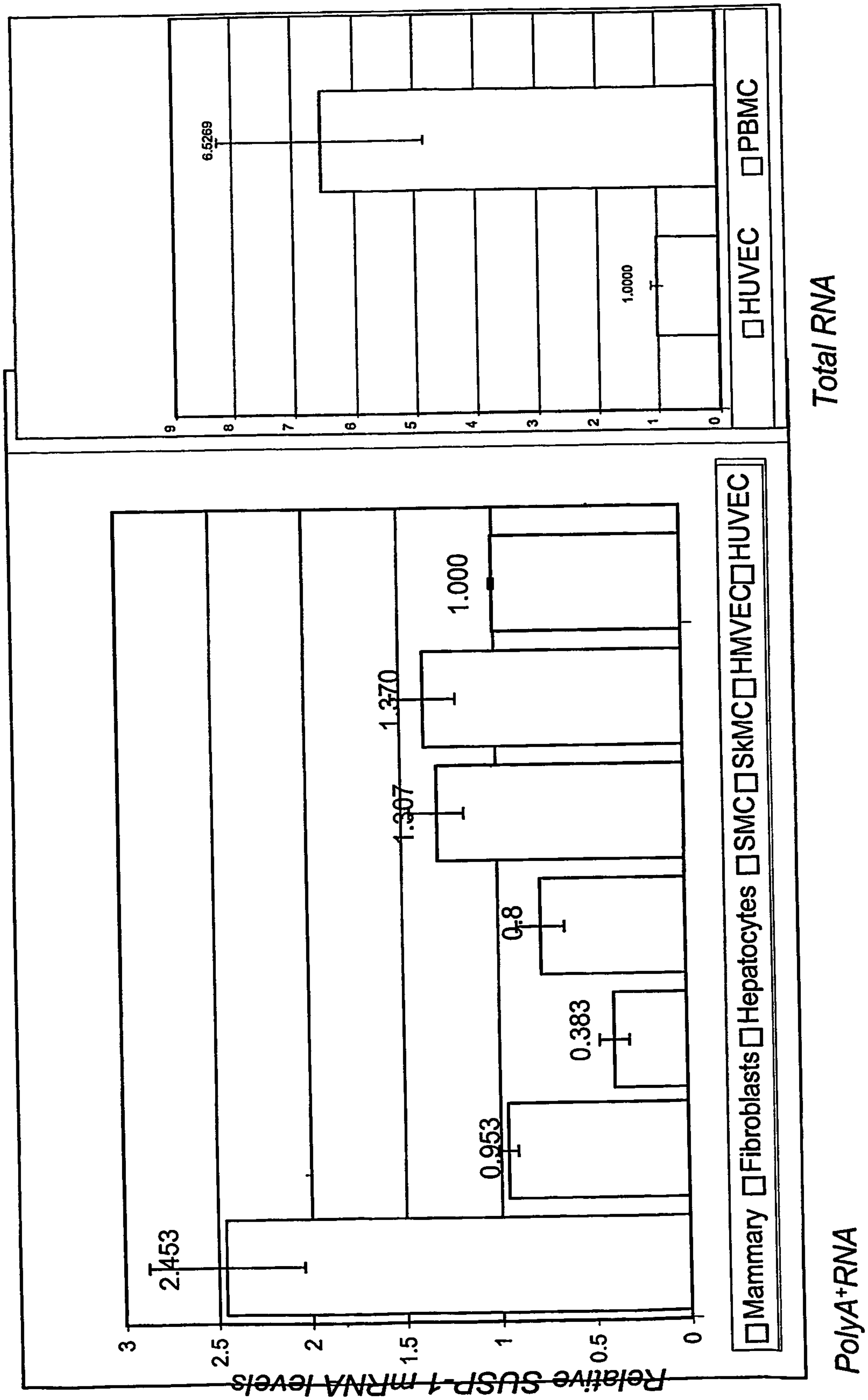


Figure 13

Figure 14

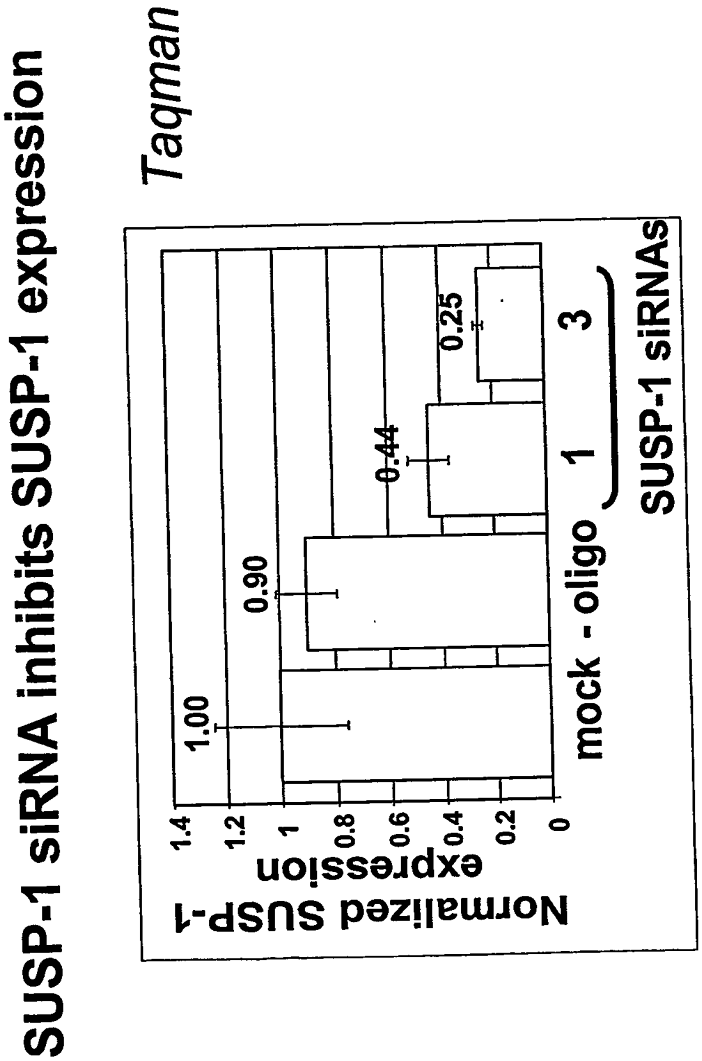

SUSP-1 siRNA inhibits SUSP-1 expression
Taqman
Normalized SUSP-1 expression
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1.00
0.90
0.44
0.25
mock
- oligo
1
3
SUSP-1 siRNAs

Figure 15

A new sequence determination for the ABC transporter gene, SEQ ID NO:2.

```
ABC transporter>
GGACGCGCCTGGTGCCCCGGGGAGGGGCGCCACCGGGGGAGGAGGAGGAG
GAGAAGGTGGAGAGGAAGAGACGCCCCCTCTGCCCGAGACCTCTCAAGGC
CCTGACCTCAGGGGCCAGGGCACTGACAGGACAGGAGAGCCAAGTTCCTC
CACTTGGGCTGCCCGAAGAGGCCGCGACCCTGGAGGGCCCTGAGCCCACC
GCACCAGGGGCCCCAGCACCACCCCGGGGGCCTAAAGCGACAGTCTCAGG
GGCCATCGCAAGGTTTCCAGTTGCCTAGACAACAGGCCCAGGGTCAGAGC
AACAATCCTTCCAGCCACCTGCCTCAACTGCTGCCCCAGGCACCAGCCCC
AGTCCCTACGCGGCAGCCAGCCCAGGTGACATGCCGGTGCTCTCCAGGCC
CCGGCCCTGGCGGGGGAACACGCTGAAGCGCACGGCCGTGCTCCTGGCCC
TCGCGGCCTATGGAGCCCACAAAGTCTACCCCTTGGTGCGCCAGTGCCTG
GCCCCGGCCAGGGGTCTTCAGGCGCCCGCCGGGGAGCCCACGCAGGAGGC
CTCCGGGGTCGCGGCGGCCAAAGCTGGCATGAACCGGGTATTCCTGCAGC
GGCTCCTGTGGCTCCTGCGGCTGCTGTTCCCCCGGGTCCTGTGCCGGGAG
ACGGGGCTGCTGGCCCTGCACTCGGCCGCCTTGGTGAGCCGCACCTTCCT
GTCGGTGTATGTGGCCCGCCTGGACGGAAGGCTGGCCCGCTGCATCGTCC
GCAAGGACCCGCGGGCTTTTGGCTGGCAGCTGCTGCAGTGGCTCCTCATC
GCCCTCCCTGCTACCTTCGTCAACAGTGCCATCCGTTACCTGGAGGGCCA
ACTGGCCCTGTCGTTCCGCAGCCGTCTGGTGGCCCACGCCTACCGCCTCT
ACTTCTCCCAGCAGACCTACTACCGGGTCAGCAACATGGACGGGCGGCTT
CGCAACCCTGACCAGTCTCTGACGGAGGACGTGGTGGCCTTTGCGGCCTC
TGTGGCCCACCTCTACTCCAACCTGACCAAGCCACTCCTGGACGTGGCTG
TGACTTCCTACACCCTGCTTCGGGCGGCCCGCTCCCGTGGAGCCGGCACA
GCCTGGCCCTCGGCCATCGCCGGCCTCGTGGTGTTCCTCACGGCCAACGT
GCTGCGGGCCTTCTCGCCCAAGTTCGGGGAGCTGGTGGCAGAGGAGGCGC
GGCGGAAGGGGGAGCTGCGCTACATGCACTCGCGTGTGGTGGCCAACTCG
GAGGAGATCGCCTTCTATGGGGGCCATGAGGTGGAGCTGGCCCTGCTACA
GCGCTCCTACCAGGACCTGGCCTCGCAGATCAACCTCATCCTTCTGGAAC
GCCTGTGGTATGTTATGCTGGAGCAGTTCCTCATGAAGTATGTGTGGAGC
GCCTCGGGCCTGCTCATGGTGGCTGTCCCCATCATCACTGCCACTGGCTA
CTCAGAGTCAGATGCAGAGGCCGTGAAGAAGGCAGCCTTGGAAAAGAAGG
AGGAGGAGCTGGTGAGCGAGCGCACAGAAGCCTTCACTATTGCCCGCAAC
CTCCTGACAGCGGCTGCAGATGCCATTGAGCGGATCATGTCGTCGTACAA
GGAGGTGACGGAGCTGGCTGGCTACACAGCCCGGGTGCACGAGATGTTCC
AGGTATTTGAAGATGTTCAGCGCTGTCACTTCAAGAGGCCCAGGGAGCTA
GAGGACGCTCAGGCGGGGTCTGGGACCATAGGCCGGTCTGGTGTCCGTGT
GGAGGGCCCCCTGAAGATCCGAGGCCAGGTGGTGGATGTGGAACAGGGGA
TCATCTGCGAGAACATCCCCATCGTCACGCCCTCAGGAGAGGTGGTGGTG
GCCAGCCTCAACATCAGGGTGGAGGAAGGCATGCATCTGCTCATCACAGG
CCCCAATGGCTGCGGCAAGAGCTCCCTGTTCCGGATCCTGGGTGGGCTCT
GGCCCACGTACGGTGGTGTGCTCTACAAGCCCCCACCCCAGCGCATGTTC
TACATCCCGCAGAGGCCCTACATGTCTGTGGGCTCCCTGCGTGACCAGGT
GATCTACCCGGACTCAGTGGAGGACATGCAAAGGAAGGGCTACTCGGAGC
AGGACCTGGAAGCCATCCTGGACGTCGTGCACCTGCACCACATCCTGCAG
CGGGAGGGAGGTTGGGAGGCTATGTGTGACTGGAAGGACGTCCTGTCGGG
TGGCGAGAAGCAGAGAATCGGCATGGCCCGCATGTTCTACCACAGGCCCA
AGTACGCCCTCCTGGATGAATGCACCAGCGCCGTGAGCATCGACGTGGAA
GGCAAGATCTTCCAGGCGGCCAAGGACGCGGGCATTGCCCTGCTCTCCAT
CACCCACCGGCCCTCCCTGTGGAAATACCACACACACTTGCTACAGTTCG
ATGGGGAGGGCGGCTGGAAGTTCGAGAAGCTGGACTCAGCTGCCCGCCTG
AGCCTGACGGAGGAGAAGCAGCGGCTGGAGCAGCAGCTGGCGGGCATTCC
CAAGATGCAGCGGCGCCTCCAGGAGCTCTGCCAGATCCTGGGCGAGGCCG
```

TGGCCCCAGCGCATGTGCCGGCACCTAGCCCGCAAGGCCCTGGTGGCCTC
CAGGGTGCCTCCACCTGACACAACCGTCCCCGGCCCCTGCCCCGCCCCCA
AGCTCGGATCACATGAAGGAGACAGCAGCACCCACCCATGCACGCACCCC
GCCCCTGCATGCCTGGCCCCTCCTCCTAGAAAACCCTTCCCGCCCTCGGG
AAAGTAGATGTGGAGGGTGGCGCCCTGCGTAACCCTCGCCCTGTCCCTCC
CACTCCCTGGGGGCGCTGTTCCACAGTGACTGGGCCCTGTCCAGGGCAGT
GAGTCCTCTACTTTGCTCCGTGGAGGAAGCTGGGGTACAAGGGGCCCAGT
GCTGGCCACACAGCAGCGCAGCCGAGCCCCAGGAGCCCGTCAGGCCACAG
CCCCTGGCACTGCAGGTGGCCTCCCTCCAGAGACTCGAGTCCCCATGATT
CCCTCCTCGTCAGTCTCTCAAAGACCCCATGGTCCATCCCCTGAGGGTGG
TCAGCCAAGGCTCCCGTTCCGTGGGATGCCATAAAAGCCGCCCAGTGGGA
CCCACAGTCACACAGAGCGCCTCACCTGCATCCTCTCCCCCACAAGAGCC
CCAAAGATCCCACGGGAGAGGGGAGAGGGACGCACAGCACTGCCTGCCAA
GCGAGAATGCAGGCCCCGCCCCCTCGGCCCCTCACCACCTCTTTCTACAG
CCTAATTTATTGGATTCCCTATTCGTAGCCATCTCCGTGGCCAATGTGAC
TACCGTGCCAGCAGCGGGGGCGGCCCAGCCTCTGAGTCCCGTGGGGCCCC
GGCTCCCACCGGTGCCAAACCCAGCCCCTGCGGCCGTCACCCCGCCAGCC
TACACTGCCAGCCGCCACCGGGGCACACGGGCCTCTGCTTGCCAGCCAGG
AGTGCGGACACCATGTTCCCAGCTCAGTGCCAAAGAGGGGTCACCAGGGG
GAGCTGTCTGCGGAGCCAGCGCCTGCCCGAGAGAGACCCCACCGCCACCG
TGTGCCTTTCCCGGGCCCTCAGCCCTCGGGCCGGGCACCACCCCCAGTCC
CCCCAGTAAAAGCCTCCACTGGCAAAAAAAAAAAAAAAAAAA

Figure 15 cont.

Figure 16

A new sequence determination, SEQ ID NO:127 for HSPA5

SEQ ID NO:127
HSP5>
ATGGAGGAGGACAAGAAGGAGGACGTGGGCACGGTGGTCGGCATCGACCT
GGGGACCACCTACTCCTGCGTCGGCGTGTTCAAGAACGGCCGCGTGGAGA
TCATCGCCAACGATCAGGGCAACCGCATCACGCCGTCCTATGTCGCCTTC
ACTCCTGAAGGGGAACGTCTGATTGGCGATGCCGCCAAGAACCAGCTCAC
CTCCAACCCCGAGAACACGGTCTTTGACGCCAAGCGGCTCATCGGCCGCA
CGTGGAATGACCCGTCTGTGCAGCAGGACATCAAGTTCTTGCCGTTCAAG
GTGGTTGAAAAGAAAACTAAACCATACATTCAAGTTGATATTGGAGGTGG
GCAAACAAAGACATTTGCTCCTGAAGAAATTTCTGCCATGGTTCTCACTA
AAATGAAAGAAACCGCTGAGGCTTATTTGGGAAAGAAGGTTACCCATGCA
GTTGTTACTGTACCAGCCTATTTTAATGATGCCCAACGCCAAGCAACCAA
AGACGCTGGAACTATTGCTGGCCTAAATGTTATGAGGATCATCAACGAGC
CTACGGCAGCTGCTATTGCTTATGGCCTGGATAAGAGGGAGGGGGAGAAG
AACATCCTGGTGTTTGACCTGGGTGGCGGAACCTTCGATGTGTCTCTTCT
CACCATTGACAATGGTGTCTTCGAAGTTGTGGCCACTAATGGAGATACTC
ATCTGGGTGGAGAAGACTTTGACCAGCGTGTCATGGAACACTTCATCAAA
CTGTACAAAAAGAAGACGGGCAAAGATGTCAGGAAAGACAATAGAGCTGT
GCAGAAACTCCGGCGCGAGGTAGAAAAGGCCAAACGGGCCCTGTCTTCTC
AGCATCAAGCAAGAATTGAAATTGAGTCCTTCTATGAAGGAGAAGACTTT
TCTGAGACCCTGACTCGGGCCAAATTTGAAGAGCTCAACATGGATCTGTT
CCGGTCTACTATGAAGCCCGTCCAGAAAGTGTTGGAAGATTCTGATTTGA
AGAAGTCTGATATTGATGAAATTGTTCTTGTTGGTGGCTCGACTCGAATT
CCAAAGATTCAGCAACTGGTTAAAGAGTTCTTCAATGGCAAGGAACCATC
CCGTGGCATAAACCCAGATGAAGCTGTAGCGTATGGTGCTGCTGTCCAGG
CTGGTGTGCTCTCTGGTGATCAAGATACAGGTGACCTGGTACTGCTTGAT
GTATGTCCCCTTACACTTGGTATTGAAACTGTGGGAGGTGTCATGACCAA
ACTGATTCCAAGGAACACAGTGGTGCCTACCAAGAAGTCTCAGATCTTTT
CTACAGCTTCTGATAATCAACCAACTGTTACAATCAAGGTCTATGAAGGT
GAAAGACCCCTGACAAAAGACAATCATCTTCTGGGTACATTTGATCTGAC
TGGAATTCCTCCTGCTCCTCGTGGGGTCCCACAGATTGAAGTCACCTTTG
AGATAGATGTGAATGGTATTCTTCGAGTGACAGCTGAAGACAAGGGTACA
GGGAACAAAAATAAGATCACAATCACCAATGACCAGAATCGCCTGACACC
TGAAGAAATCGAAAGGATGGTTAATGATGCTGAGAAGTTTGCTGAGGAAG
ACAAAAAGCTCAAGGAGCGCATTGATACTAGAAATGAGTTGGAAAGCTAT
GCCTATTCTCTAAAGAATCAGATTGGAGATAAAGAAAAGCTGGGAGGTAA
ACTTTCCTCTGAAGATAAGGAGACCATGGAAAAAGCTGTAGAAGAAAAGA
TTGAATGGCTGGAAAGCCACCAAGATGCTGACATTGAAGACTTCAAAGCT
AAGAAGAAGGAACTGGAAGAAATTGTTCAACCAATTATCAGCAAACTCTA
TGGAAGTGCAGGCCCTCCCCCAACTGGTGAAGAGGATACAGCAGAACTCC
ACCACCACCACCACCAC

Figure 17

Protein disulfide isomerase, SEQ ID NO:165.

SEQ ID NO:165

Novel protein disulfide isomerase
Novel (disulfide disomerase-like)

CGGACCAACACAGTATTGAGTCAACTGTGACCTTAAGATCAGAGGAACGTCAATACTGCCACAAGGCCACCTTTCCA
GAACTCGTGGGCAGGTAAACTATGCTTTGGATGTGCTTTCTTTCACCAAAATCACTCAACTCAGGAGCCACAAATAG
TCCAGCAATTTCATTTCCCTCAACGCTATTTTAGTCTCAAAGGAAACCATGTAAATTTCATCAAGAGAAGGTCAAAG
GGGATATATCGCCACTGAAAATGTTTACACAGTGACCATGAGTTACACATTTACTTAGAGAAACTTAACTTAATAAA
GAATCTGTAGAGTGTGTTGGCTTGGAAAACACACACACAAAGAAGATACCTCACGCTTAGTATGTTCTGCTTTCTGA
ACAGCCACCACTGGGAACCCAGTGGCCTCTGTGGGACTGAACTCCTAAACGCAGGGTGCGGGAGCTGGGCAGGAGAG
GTGACCTCCAACTGTGTTCCTAAAGTTCGTCTTTCGCTTGGCTCAGGACAAAGCGGTGTAACGAGTCAAAGTCTCTG
CCTCCACTGTGCTCACTGACTTTCTTCCCTCCTCGGAAAAGCAATAACGTGGGGTAGCCTCGT

Figure 18

Chromosome 1 protein

SEQ ID NO:210

Clone 30 -Novel (Chromosome 1)>

ATCTACATGAGGTCCTGTAGATTGAGCAACTTTGGCTATTTGGGTAGCTGATCCACTGCCAAGCTGGCTCCCAGCTA
CCACCTGTTACTTTGACAACTCTAGCTTCAGGGCTACCAGGACCATTTGCAAAACTTACACCCACAGAAAACTCAAA
GTCTCCAGAGGCATAAGCTCCAACCCCCAGAGAGCTCCACAGCATTCTTCTCCTTCTAGTAGTACTTTTGGTTTCCA
GGAAAATCATCTCATGCTCGGGCCACAGTCACAGTCCTGACCAGCACCATAGAAATTTCAGCCATTATTCTAGTTGT
ATGGAGTCATTCAAAATACTAGTTCCGAAAGAAGTTTCAAAGGTCCAACGCCGAGCATCTTTTACCTTTGCTAATTT
TTCCATAAATTGAAAGCCTT

Figure 19

Chromosome 3 protein

SEQ ID NO:218
Clone 95 -Novel (Chromosome 3/ H41)>
GCGTCGCTCGGCGTTAGCCAAGGCCCGGGCGGCGCCACCCTCCGGGGGCACTAGGTCTGGGGCCGCAGTGCCCAGCA
CAGAGCAGCGTTTATCGGGACGAAGATGAATGGAAAGAATTGGAGCAAAAAGAGGTTGATTACAGCGGCCTCAGGGG
TTCAGGCAATGCAAATAAGCAGTGAAAAGGAAGAAGACGATAATGAAAAG

Figure 20

Chromosome 17

SEQ ID NO:227

Clone 147 - Novel (Chromosome 17)>
CTGCTTCTCTTCTAGGATAGTTTCCCTCTAGAAATCCATGTTGCTCCTTCTCTCATTAAATGATCAGATATTTATGT
GCCTCCTTAGCTAAGAGGCCTTCCTTATCTACCCTAACTAAGAGAATCCCCATATCACTCTTATCCTTTTATCCTGA
TTTATTTTTCCATAAAACTTGCCACATTACTGGGCATTATCTATCATTTAGTAATGTGTATATTGCTTATTGACAGT
CTTCCCTACTATAATATGAGCTCCATGAGGCAGAGACTTTGTTTTGTTCACTGCTGAATTCCCAGCACCTACAACAA
GCCTACTCACTAAACATTTGTTGAATTAATCTTCAGGATACATCAAATGTAAAATATCCTATCATATATTTATTGAT
GTGATGCATAGGAAAATGTCTGGAAGGGTACATACCAAAATGTTAATTATTTATTTAACCTGGTGGGAGGTGGTTTT
TCTTTCCTTTTCTTTTCTTTTTGAGACAGAGTTTCGCTCTCGTTGCCCAGGCTGGAGTGGAATGGCAAG

Figure 21

Chromosome 8 protein

SEQ ID NO:232

Novel (chromosome 8)>

GCTTGCAAAGGAGAGGCTGTGACTACCAAGTCGTGTCAACAACTGAATGGCTGAAATACCCAAACTTGCCCATGCAA
ATGGGCTTGGGTCTCTCCTGGCAGCCGCCTTTGAAGGCTCTAGACTTATCTGTGAACTCCTTTTTTGAGAGGGTCTT
TCCAACTAGTGGTTTATTCTTTGACTCTCCTCATACCTTTTTTGCCAGAGAGTGAGAGTGAGAAGGGAGGGCTAATG
CCTGAGCTCCTGCCCTTTCTATGCAGTGAGGGTCAAGATCCTCAGCTAGTGTTTGAGGGAACTGGTGTAACCTGGGT
CTCTCATTTTCTACCATCCAAGTTGCC

Figure 22

Chromosome 9 protein

SEQ ID NO:248

Clone 49 -Novel (Chromosome 9)>
CTGCAGGAGACCACAGGCAGGTGCCCACCTAAGAGGGACAGCCACAGAAACCCTCTAACCTCAGCACTGCACTCCAC
CACGACCACCCCACGCAGGCCCTCAGCACCGCACTCCACCACGAACACCCCACACAGGCTGAGGCTGGAGCCAGAAG
CTGCCAGAACATGGGACCACAGGGCCAGGCACCACACAAACATGGCGACGGACACAGCCATCCAACCCGACTCGGAC
CTCCGCCAGGCCCCCAGCGCACAACCATCTGGGATCCCCAGGAAAAGAGCTGCGTGCGGCCAG

Figure 23

1/226 protein

SEQ ID NO:274

Clone 1/226 - Novel(Clone1/226)>
GCCGAGCCGGACTGGTCAGGATGATCACGGACGTGCAGCTCGCCATCTTCGCCAACATGCTGGGCGTGTCGCTCTTC
TTGCTTGTCGTTCTCTATCACTACGTGGCCGTCAACAATCCCAAGAAGCAGGAATGAAAGTGGCGCTTTCTCCGCCC
CAGGGTTCCAGGACATAGTCTGAGGCAAGATGGAGGGTATGAGGGGCCTTCACACTTCACTTCATCCCTTCTACCCA
TCACAACATACAAAGCAACTACACCTGGATTTTTCCAAACAACTTTTATTTCCTCAGAGTCTTCCTTAATCCTATGG
AACAAGAAGCTGCCACTGAATAGGGCCCAGTATAGGGGCTTGCTTTTCTACTCCCTCCCCCCAATATAAAAATATAG
ACTTTTAAAAAAAAAAAAAAAAAAAAAA

Figure 24

A new sequence determination for FLJ10688

SEQ ID NO:285

Novel (FLJ10688)>
CACCCAGCACCTTACCAGAAGCTCCACAACCACAGCGTCTGCCCCCAGAAGCTGCCAGCACATCTCTGCCTCAGAAG
CCACACTTGAAGTTAGCACGCGTTCAGAGTCAAAATGGCATAGTACTGTCATGGAGTGTCCTGGAGGTGGATCGAAG
CTGTGCCACTGTTGATAGCTACCATCTCTATGCTTACCATGAGGAACCCAGTGCCACTGTGCCCTCACAATGGAAAA
AGATTGGGGAAGTCAAGGCACTTCCCTTGCCCATGGCATGTACTCTCACCCAGTTTGTATCTGGTAGCAAATACTAC
TTTG

Figure 25

A new sequence determination for KIAA1583

SEQ ID NO:307

Clone 89 -Novel (KIAA1583)>
ACTGCAGGTGGCAGCCACGGGCGCGCCGCTCGGCCTCATCTGACGCCTCTGCAGCGGGTTCCGCAGGCCTGCAGGGC
GGGGAGGCCGGGACTGGCCGTCAGCGCTGAACGGCCCAGCCTGCCCAGGGCCCAGCTGCTGGAGACCCGCAGCTCGT
CCCCGGCGGCTCCTAATCACCAGCAGCTCCTGTTTCTCAAAACGCAGACATCCGCCCCTCTTGGGGTCAGGCCCTTC
CACCCTGCAGGCGAGCCGCCCCAGCCCACTCCCGACTGGCGCTATGCCTCGATCACCGCTCTTGCTCCCAAGTGGAC
CGCAGGGGAGACGCTCTCTTACGGGGACCCTGGGGGCGCTCACTCTCTGAAGGGCCTGGAAGCTAGATTCCAGAGGC
GTGGGCCACCTCTCCCTGGGTTTTGGGGAGCCCCCTCCGAGGGTGTTCATTTCCTGAGCTCTGTGTCATCTTAGGCT
CTGAGGGT

Figure 26

A new sequence determination for KIAA1814

SEQ ID NO:317

Clone 75 -Novel (KIAA1814)>
CTGGACGGCCTGGCTGGGCTGAAGGGCGAGGACAGCCGCAGCAAGGAGGCAGGGGAGGGCGGCCTACCGCTGTGCGG
GCCCACGGACAAGACCCCACTGCTGAGCGGCAAGGCCGCCAAGGCCCGGGACCGCGAGGTCGACCTCAAGAATGGCC
ACAACCTCTTCATCTCTGCGGCGGCCGTGCCTCCCGGAAGCCTCCTCAGCGGCCCGGCCTGGCCCCGGCGGCGTCCT
CCGCAGGCGGCGCGGCGTCCTCCGCCCAGACGCACCGGTCCTTCCTGGGCCCCTTCCCGCCGGGACCGCAGTTCGCG
CTCGGCCCCATGTCCCTGCAGGCCAACCTCGGCTCCGTGGCCGGCTCCTCCGTGCTGCAGTCGCTGTTCAGCTCTGT
GCCGGCCGCCGCAGGCCTGGTGCACGTGTCGTCCGCTGCCACCAGACTGACCAACTCGCACGCCATGGGCAG

Figure 27

Chromosome 4 protein

SEQ ID NO:320

Novel (maps to chromosome 4)
Novel (Chromosome 4)>
GGAATAAAAGAGTGGAAATGGGGATTTCCAGGTGCTCCCCTGGTTCATCTAGGCACCAGAGAGCTGCACTAGCAGGT
CTATCATGAATCTCCTTGGAATGCTCATTTTTAGTCCTACTTGATGTGTCTGTTTCTGGAAATGCAGTATTTTTAAT
GTATCTCAACAAAATATTTTATGATTAGTAAGCTTATTCTTATATAAAGGACAATTTTTTTCCTTTTTCACAGGTTC
TAATAATTTTTTATTTAATAATTAGATCTATTAGATTTTATTCATAACTGTGGTAGTTGAAGTACCTTCTAAGCTGA
GTTCAGATTTGAGAATAAACCTTGGGGTATCATTACAGAAAATTTTGTCTCAATCTGCTTTGTATTTGAAAGATATG
AGATTCTTGAATTATATATCTTACAGACTAGTCCCCAAAAGAATACGTGTTTCCTTACCTTTAATTTCTCATGGTAG
TTAGTCTGTGAAT

Figure 28

A new sequence determination for peroxidasin/melanoma antigen related protein

SEQ ID NO:323

Novel peroxidasin-like/ melanoma antigen>
CGACCTGGCCAGCCACCGCGGCCTGCTGCGGCAGGGCATCGTGCAGCGGTCCGGGAAGCCGCTGCTCCCCTTCGCCA
CCGGGCCGCCCACGGAGTGCATGCGGGACGAGAACGAGAGCCCCATCCCCTGCTTCCTGGCCGGGGACCACCGCGCC
AACGAGCAGCTGGGCCTGACCAGCATGCACACGCTGTGGTTCCGCGAGCACAACCGCATTGCCACGGAGCTGCTCAA
GCTGAACCCGCACTGGGACGGCGACACCATCTACTATGAGACCAGGAAGATCGTGGGTGCGGAGATCCAGCACATCA
CCTACCAGCACTGGCTCCCGAAGATCCTGGGGGAGGTGGGCATGAGGACGCTGGGAGAGTACCACGGCTACGACCCC
GGCATCAATGCTGGCATCTTCAACGCCTTCGCCACCGCGGCCTTCAGGTTTGGCCACACGCTTGTCAACCCACTGCT
TTACCGGCTGGACGAGAACTTCCAGCCCATTGCACAAGATCACCTCCCCCTTCACAAAGCTTTCTTCTCTCCCTTCC
GGATTGTGAATGAGGGCGGCATCGATCCGCTTCTCAGGGGGCTGTTCGGGGTGGCGGGGAAAATGCGTGTGCCCTCG
CAGCTGCTGAACACGGAGCTCACGGAGCGGCTGTTCTCCATGGCACACACGGTGGCTCTGGACCTGGCGGCCATCAA
CATCCAGCGGGGCCGGGACCACGGGATCCCACCCTACCACGACTACAGGGTCTACTGCAATCTATCGGCGGCACACA
CGTTCGAGGACCTGAAAAATGAGATTAAAAACCCTGAGATCCGG

Figure 29

WD40/SOCS box protein

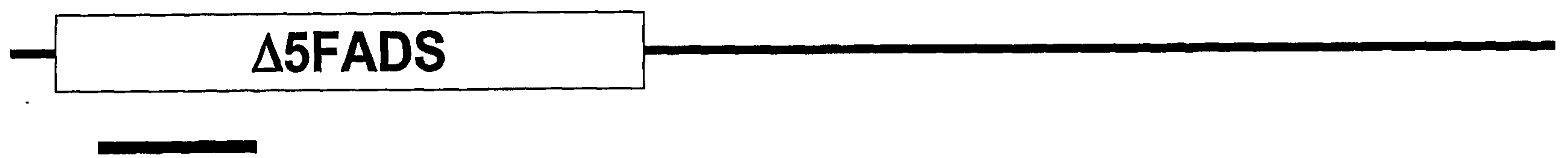
SEQ ID NO:329

Novel WD40/SOCS box protein>

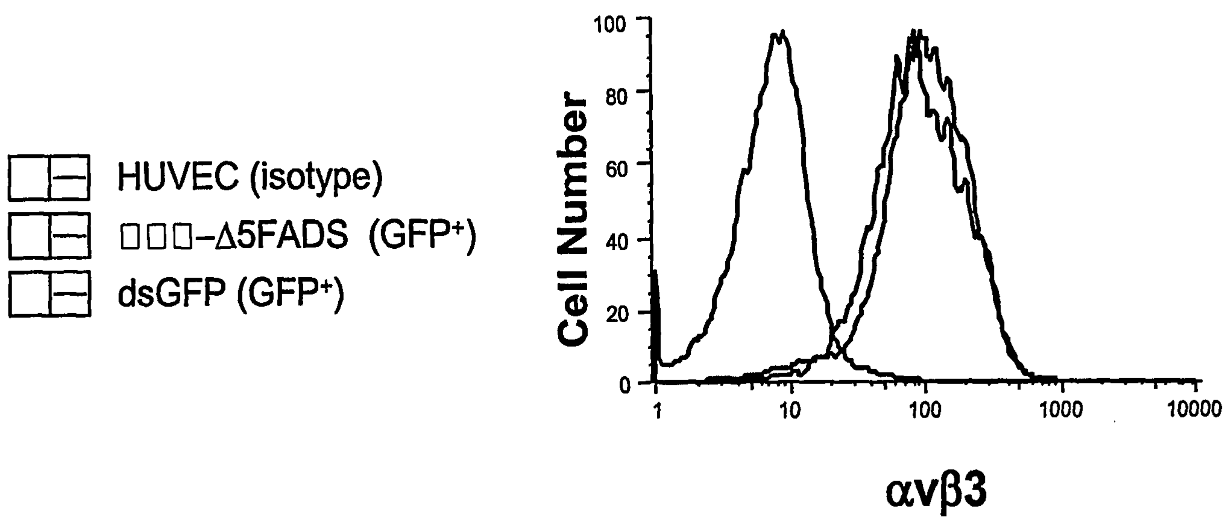
CGGCTCTGTTGCCGTGCAAGTGGAATCATCTTACCTCTAAGACATGACTTTCACATGCCAGGGGAGAGAAAGATCCA
TGACTAGTACACTGGCAATCTGGTTTTGCTACATTCTATTCACAATCCCAAAGAAATGCTATTTCAATGCAAGACCA
GATGTTTGGCCCATTATTCCAGCAACTCCCTTTGACAGGACGATTTACCCTGCTACCAAAGAAGCACAAGATGTGGT
GTTGCTTAAAAAAGTCCTGTATGTGAGGAACTCTTTCATTTTCTTGGGGATTGGCAGTGCTAGGACTTGGTAAGTTG
TTAGGAAACTTCGAAGGGCTTTCCGGCATAAGTGCTTCAGTGAGGACAGGACCCTAGGAGCTGTCCAGAACTGGACG
TGGCCATCTCTTGTCCCTGTGGCAATGACTCCACCATGTGGAAAAAATGTGCAGCAAAGCCCATTGGTCATAGGAGC
AAATGCAATGGGAGTTTTCAGTTCCAGGGCCCAGATCCTGAGGAGTCTGTCATCTGCCACCGTGGCAAGGTACAAGC
CCCCG

Figure 30

GFP-Δ5FADS Antisense Screening Hit Downregulates Surface αvβ3 Levels



- GFP- Δ5FADS screening hit: 300 bp antisense



GFP-Δ5FADS Antisense Screening Hit does not Affect Cell Proliferation

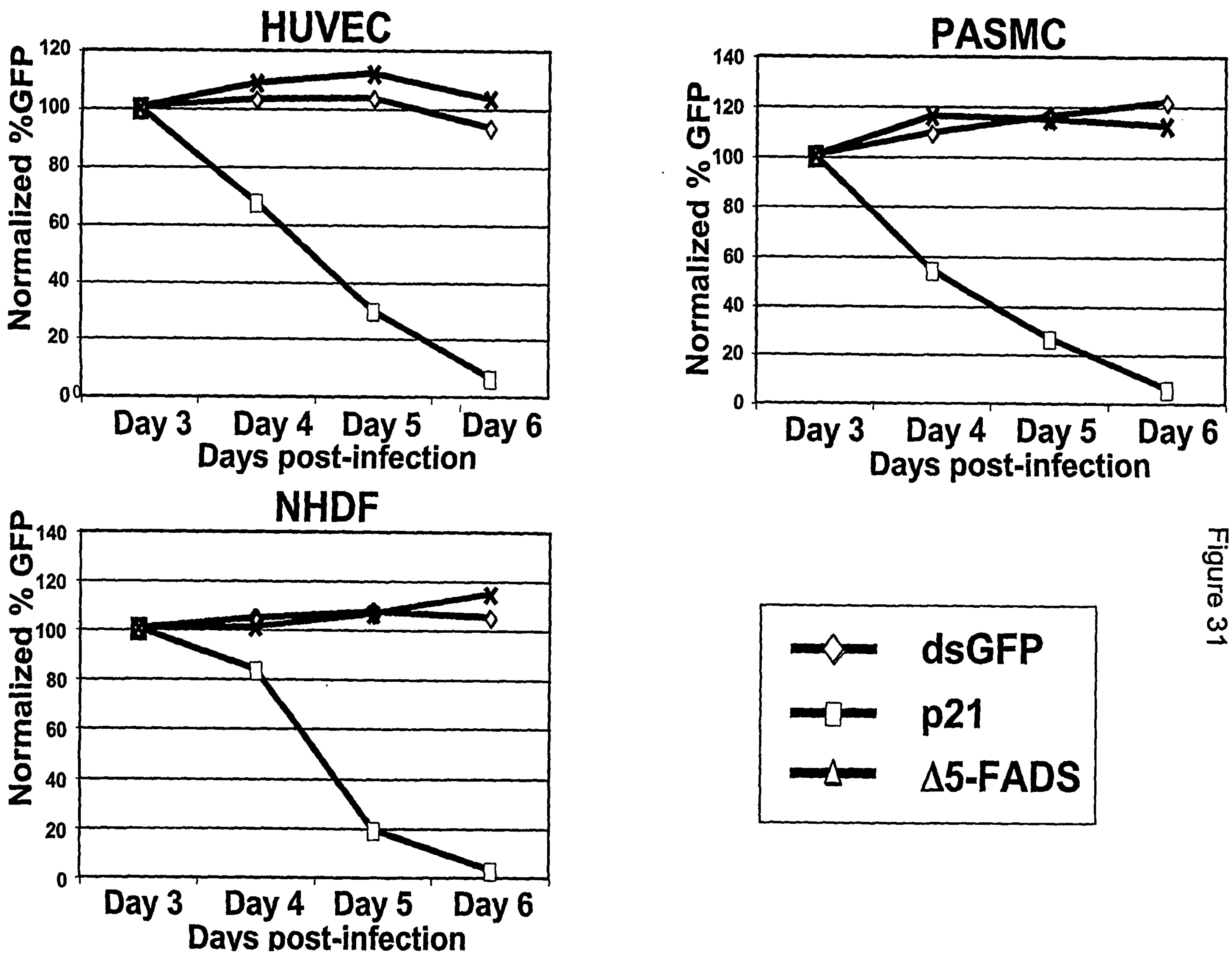


Figure 31

Figure 32

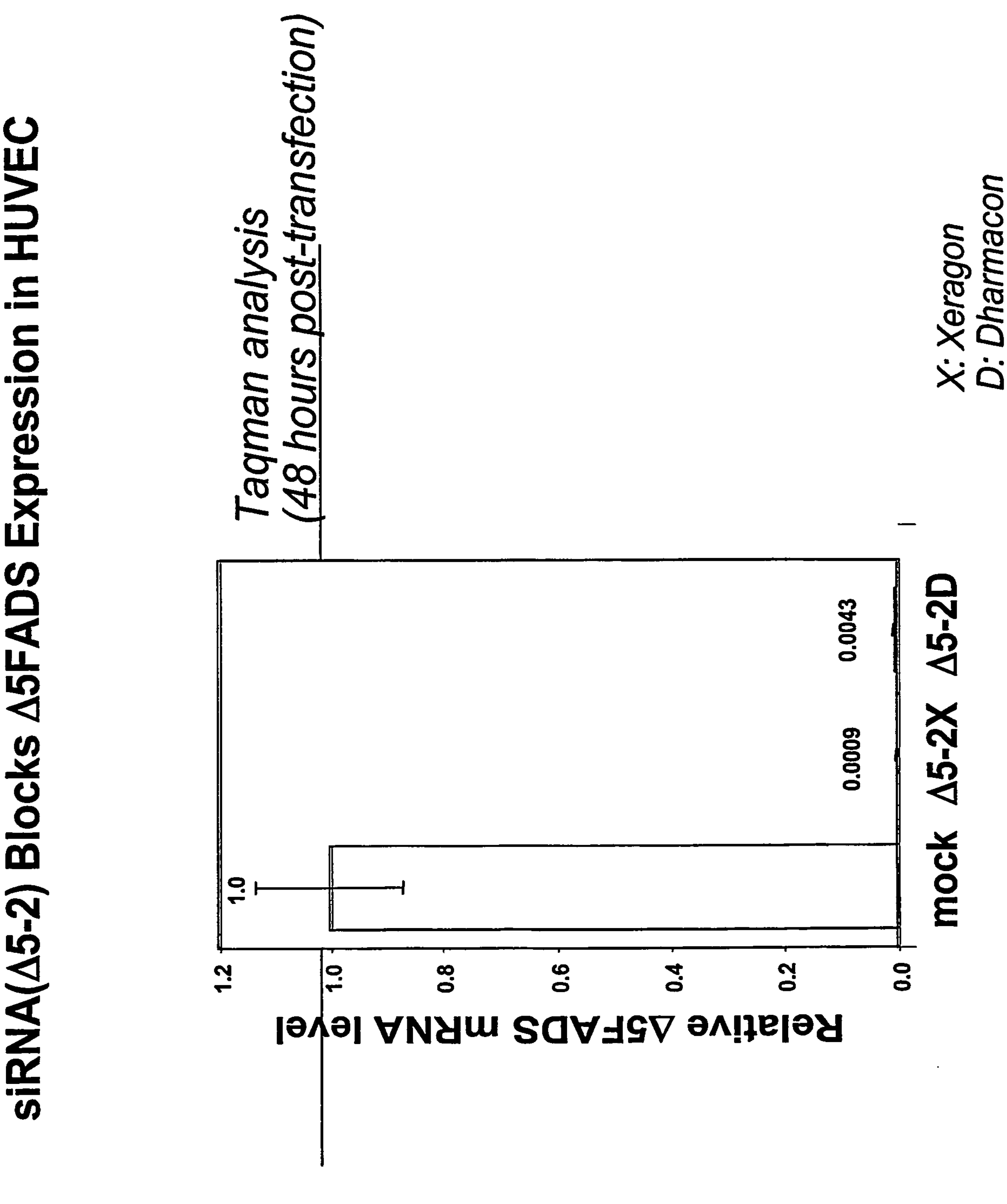

siRNA(Δ5-2) Blocks Δ5FADS Expression in HUVEC
Taqman analysis
(48 hours post-transfection)
Relative Δ5FADS mRNA level
1.2
1.0
0.8
0.6
0.4
0.2
0.0
1.0
0.0009
0.0043
mock
Δ5-2X
Δ5-2D
X: Xeragon
D: Dharmacon

Figure 33

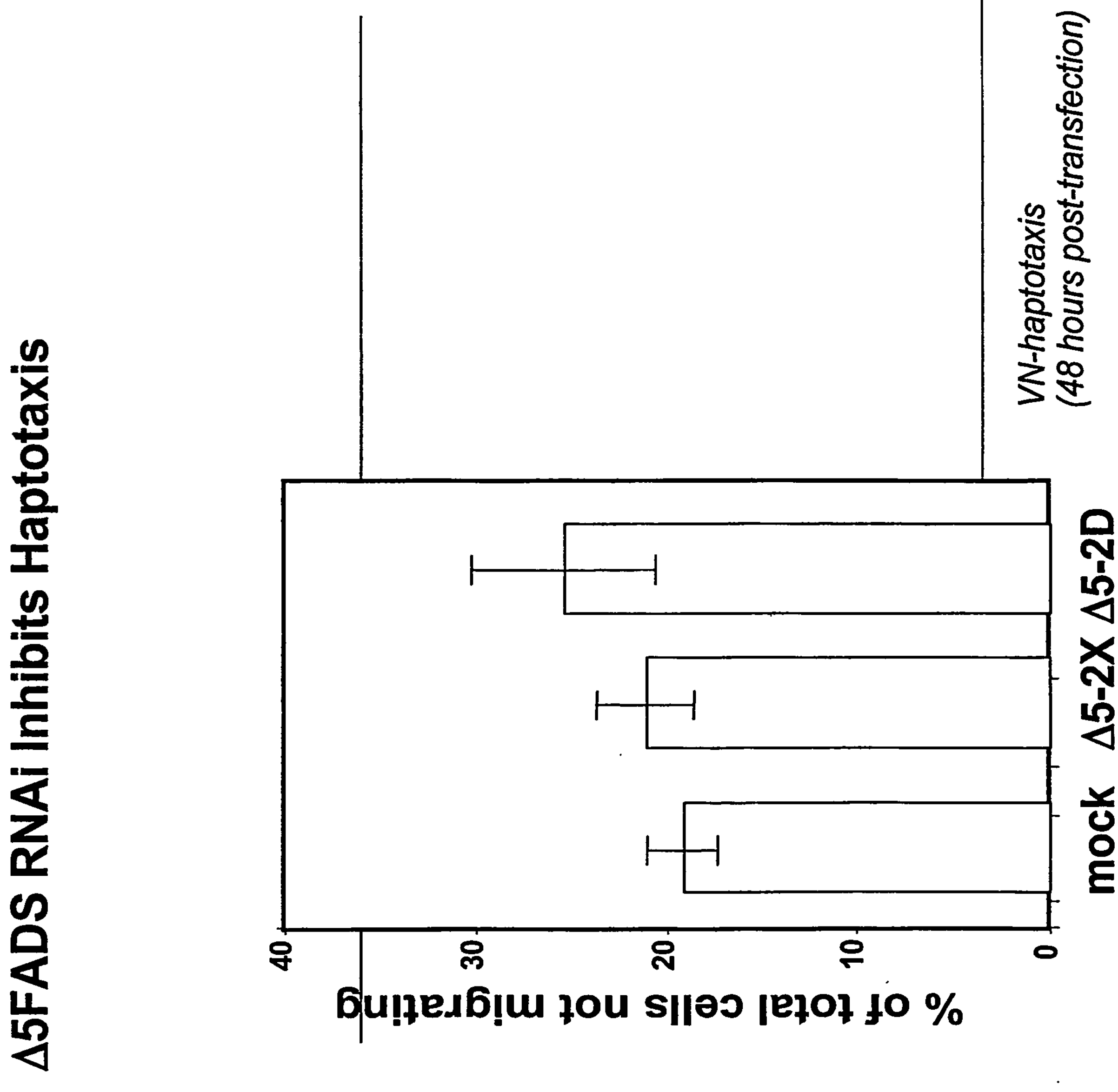

Δ5FADS RNAi Inhibits Haptotaxis
% of total cells not migrating
0
10
20
30
40
mock
Δ5-2X
Δ5-2D
VN-haptotaxis
(48 hours post-transfection)

Figure 34

Δ5-FADS RNAi Vector Reduces SDF-1 Induced Chemotaxis in Jurkat Cells

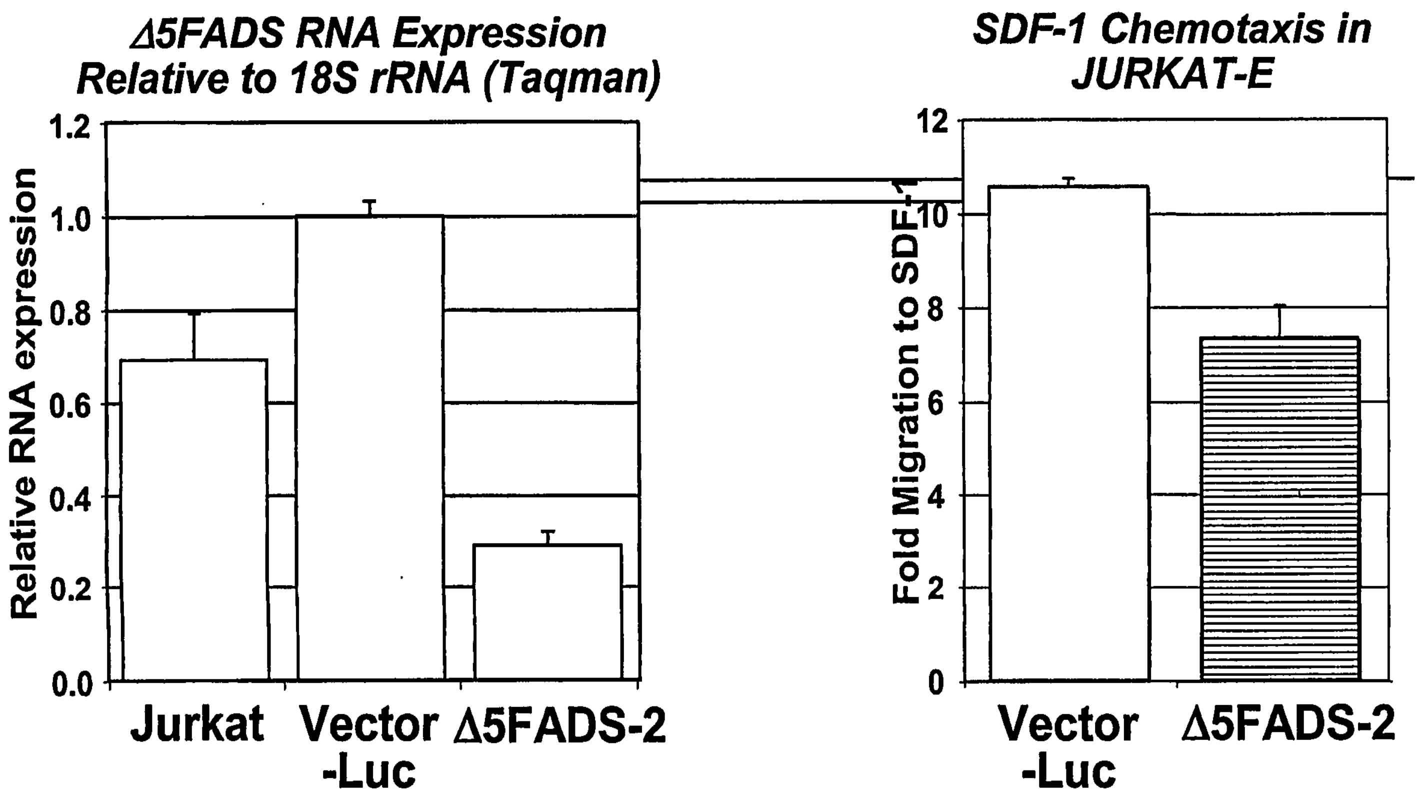


Figure 35

Δ6FADS is a Functional Screening Hit

- *5' RACE analysis indicates that the Δ6FADS transcript is spliced with the Novel (KIAA1583) transcript.*
- *Δ6FADS and KIAA1583 sequences are both located on Chromosome 11q12*

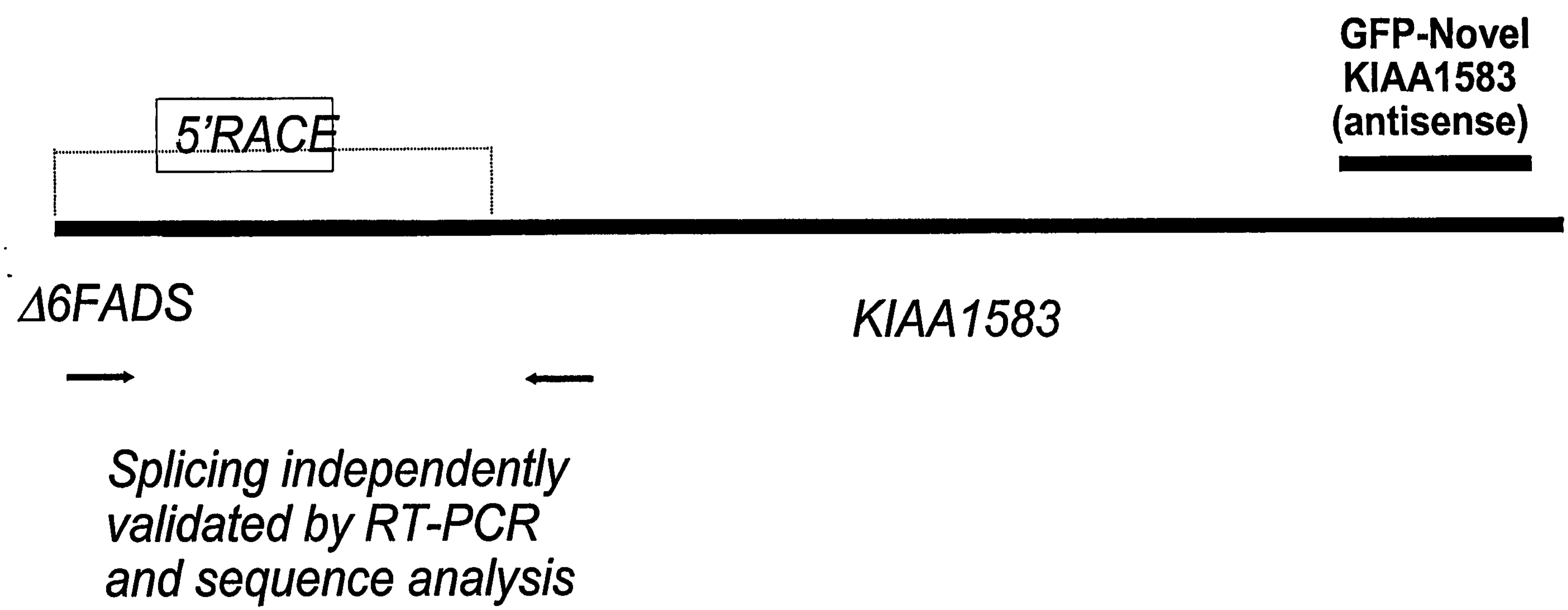
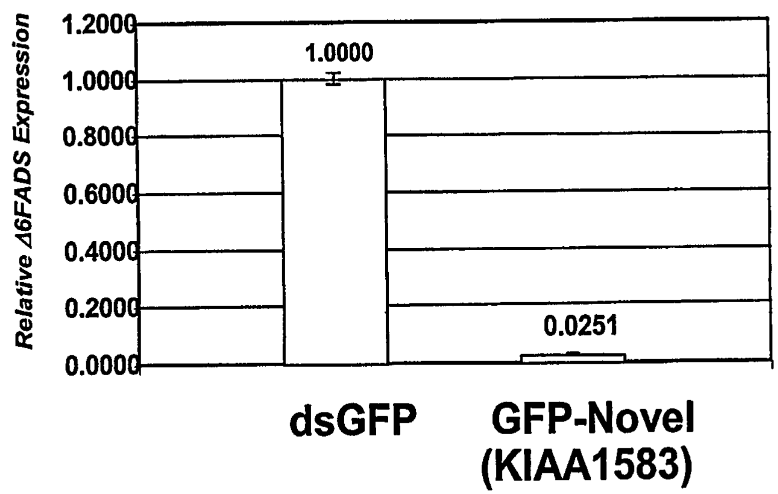


Figure 36

Δ6FADS is a Functional Screening Hit

- *HUVECs expressing the GFP- Novel (KIAA1583) screening hit have strongly reduced levels of Δ6FADS mRNA.*

Taqman analysis of Δ6FADS mRNA levels



Δ6FADS RNAi Reduces αvβ3 Surface Expression

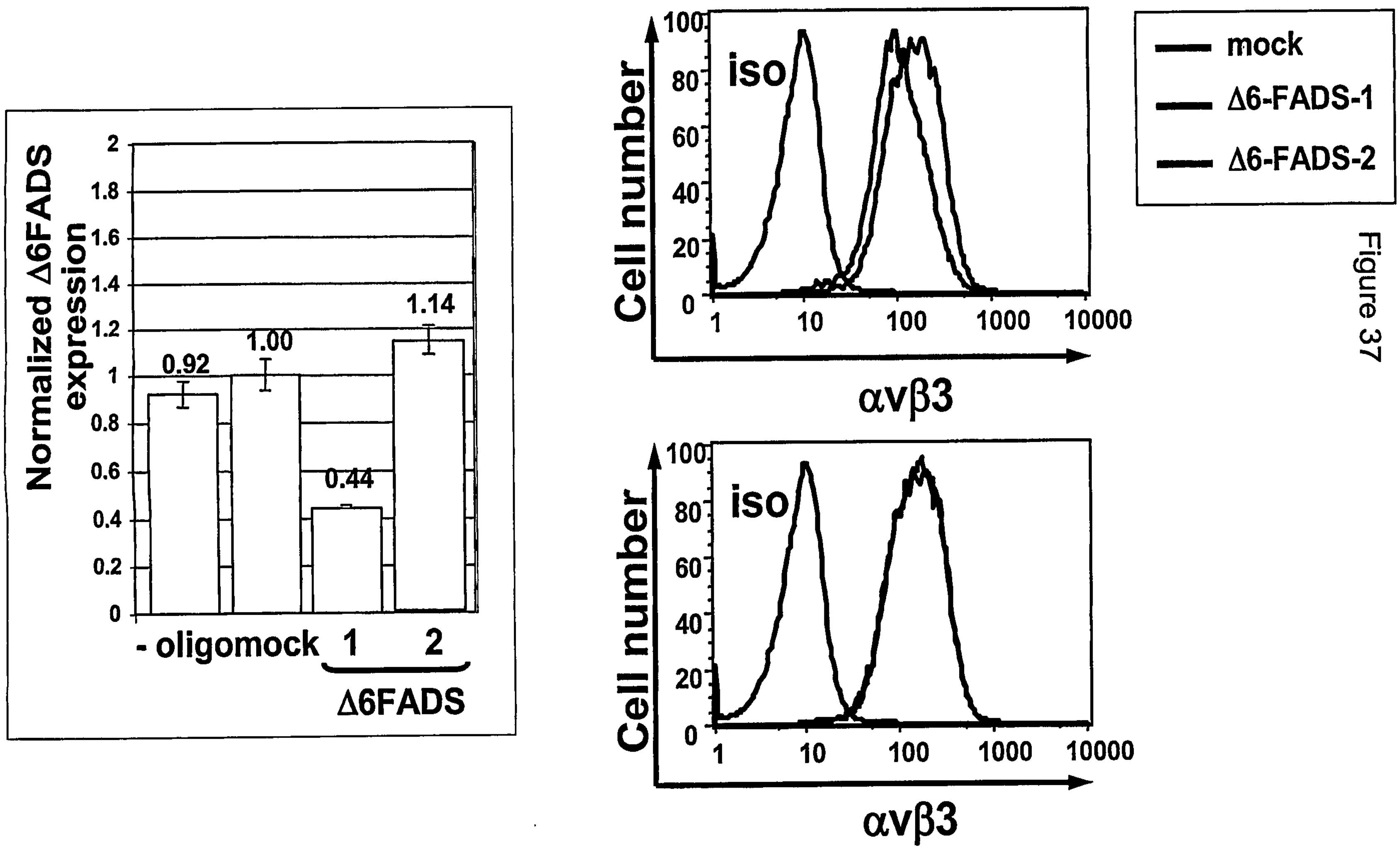


Figure 37